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Remarks

Claims 8 and 10 are amended. Claims 1 to 10 are pending in this application of which only claims 1 and 9 are in independent form.

Claim 1 was rejected under 35 USC 102(b) as being anticipated by Nakajima et al. The following will show that the applicants' claims patentably distinguish their invention over this reference.

Nakajima et al discloses an automatic start/stop system for an internal combustion engine which includes an internal combustion engine, a starting motor, a transmission, a vehicle operating condition sensor and a controller. The controller does the following: monitors the vehicle operating condition in order to generate an automatic start request signal during an automatic stop operation; computes a desired or target engine speed for the engine for the automatic restart thereof; and, controls the starting motor in dependence upon the desired engine speed in order to carry out the automatic restart in response to the start request signal. A power control unit 12 controls the operating condition, the engine speed and the level of power generated by the motor/generator 2. When the motor/generator 2 functions as a motor in order to impart additional torque to the engine or to crank the engine, then current from the battery 13 is supplied to the motor/generator 2 via the power control unit 12. When the motor/generator 2 functions as a generator in order to absorb running energy of the vehicle, then the generated current is

delivered via the power control unit 12 to charge the battery 13 as described at column 3, lines 13 to 22, of this reference. The stop/restart controller 10 stops the engine when the vehicle comes to standstill and starts the engine with the aid of the motor/generator 2 in order to restart the vehicle. The stop/restart controller 10 receives input information as to vehicle operating conditions from an engine speed sensor 9, a brake sensor 11, an accelerator pedal sensor 15, a position sensor 17 for detecting the selected position of the automatic transmission and from a vehicle speed sensor 18. The stop/restart controller 10 carries out the automatic stop and restart control in dependence upon the signals from the above sensors as described at column 3, lines 27 to 39, of this reference.

In contrast to the subject matter of applicants' independent claim 1, no motor-independent vehicle functions are known from Nakajima et al. As set forth in the applicants' disclosure at page 4, lines 23 to 27, the motor-independent vehicle functions are functions which concern characteristics of the vehicle. By way of example, these functions include a driving dynamic control, a road speed control, a drive slip control and an anti-blocking system. Such motor-independent vehicle functions relate to characteristics of the vehicle but are independent of the motor of the vehicle and no such motor-independent vehicle functions are suggested in Nakajima et al.

In contrast to the applicants' invention, the stop/restart controller 10 of Nakajima et al defines a motor-specific function having the task of stopping or restarting the internal combustion

engine. The controller 10 performs this function in dependence upon the evaluation of various sensors such as the engine speed sensor, brake sensor, accelerator pedal sensor, vehicle speed sensor, and a sensor for indicating the position of the automatic transmission. These sensors are, however, not vehicle functions and do not send a command to the start/stop controller 10 to start or stop the engine which is in contrast to the subject matter of applicants' independent claim 1. Instead, the start/stop controller 10 evaluates the sensor signals and decides itself in dependence upon the sensor signals whether the internal combustion engine should be stopped or started. Accordingly, Nakajima et al is therefore defective as a reference because it does not suggest the motor-independent vehicle functions of applicants' claim 1 nor does it suggest an interface to such motor-independent vehicle functions.

Applicants' claim 1 is set forth below and requires the following:

"A method for starting or stopping a motor-driven motor vehicle having motor functions and vehicle functions independent of the motor, the method comprising the steps of:

for a start operation or a stop operation, issuing at least one command by said vehicle functions via an interface to said motor functions for starting or stopping the motor of said motor vehicle; and,

transmitting at least one condition datum as to said motor and/or said motor functions by said motor functions via said interface to said vehicle functions."
(emphasis added)

None of the above features of applicants' claim 1 are either disclosed or suggested in Nakajima et al.

From the above, it can be seen that applicants' claim 1 is directed to something very different than the subject matter of Nakajima et al. In applicants' claim 1, a disengagement of motor functions from motor-independent vehicle functions for a start/stop operation of the vehicle is provided so that the subject matter of claim 1 can be used independently of the type of the motor of the vehicle and also independently of the type of start or stop operation. With the use of the interface set forth in applicants' claim 1, the vehicle functions and the motor functions with respect to the start/stop operation can be distributed as desired to different control apparatus of the motor vehicle. In contrast to the applicants' invention, Nakajima et al is concerned with reducing an unwanted torque shock during restart of the engine as noted at column 1, lines 27 to 32, of this reference.

The power controller 12 of Nakajima et al is provided for controlling the starter motor or generator 2, especially, for the switchover thereof from generator mode to motor mode and vice versa. Functions relating to the vehicle motor are not assigned to the power control unit 12 in Nakajima et al. The interface between the stop/restart controller 10 and the power control unit 12 in Nakajima et al should not be compared with the interface between the motor-independent vehicle functions and the motor functions set forth in applicants' claim 1. As explained above, motor-independent vehicle functions and therefore the interface of applicants' claim 1 are nowhere suggested in

Nakajima et al.

In view of the above, applicants submit that claim 1 patentably distinguishes their invention over Nakajima et al and should be allowable. Claim 9 parallels claim 1 in an apparatus context so that this claim too should be allowable as should claims 2 to 8 and 10 which are dependent from one of the two independent claims.

Reconsideration of the application is earnestly solicited.

Respectfully submitted,



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